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ABSTRACT

This study was designed to examine the motivation levels of middle school aged children in public schools. It is part of a larger project that seeks to determine the children's problem solving approaches to their schoolwork and common social problems. A cohort of age and gender matched participants from Beijing, China was added for a cross-cultural comparison. The Patterns of Adaptive Learning Survey (PALS) was used as a self-report measure of the participants' motivation for personal achievement, perceptions of the classroom goal structure, academic efficacy, academic strategies and cultural dissonance between home and school. (GCP)

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# Academic Motivation in Middle School Children: A Cross-Cultural Comparison

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## DESCRIPTION OF THE STUDY

This study was designed to examine the motivation levels of middle school aged children in public schools. It is part of a larger project that seeks to determine the children's problem solving approaches to their schoolwork and common social problems. A cohort of age and gender matched participants from the public schools in Beijing, China was added for a cross-cultural comparison.

A review of the research in this area indicated that a decline in motivation of students occurs during the transition from elementary to middle school. It had been hypothesized that this decline may be due to cognitive, social and physical changes that the student is experiencing. This outcome is a detriment to the student: teacher relationship. An additional review of cultural comparisons between American and Chinese middle school aged students revealed that curriculum, parental

practices, and levels of self-efficacy have distinguished the differences between the groups. However, the participant sample size has been small and limited to Caucasian middle class participants as compared to urban Chinese. The current study used a sampling method to obtain an urban population (58% Hispanic, 20% Black, 17% White, 5% other) from the Chicago area.

The Patterns of Adaptive Learning Survey (PALS) developed by Midgley, Maehr, Hicks, Roeser, Urdan, Anderman, Kaplan, Arunkumar and Middleton (1967) was used a self-report measure of the participants motivation for personal achievement, perceptions of the classroom goal structure, academic efficacy, academic strategies and cultural dissonance between home and school. The student survey that was used is composed of 47 statements with likert responses of 1="not at all true" and 5="very true". Parental consent and student assent was

obtained. Each participant then received an explanation that their views on what motivates their behavior at school were of interest in the study and that a questionnaire measuring this is requested. All of the students agreed and the PALS was administered during a class meeting and took approximately 25 minutes. When clarification and definition of terms was needed with the younger grades, it was given; all students completed the PALS independently.

Three hundred and twenty-seven participants' responses to the PALS were analyzed. 174 participants (n=36 from Chicago area schools, n=138 Beijing schools) were in grades 4 and 5. 151 participants (n=29 Chicago area schools, n=122 Beijing schools) were in grades 6,7 and 8. The gender ratio was approximately 55:45 for each school/country.

In an ANOVA procedure level of schooling, gender and culture were examined. A main effect was determined for levels

of schooling (F=4.281, p=.017, df=2,322). The main effect for gender and culture were not statistically significant. The interaction between the variables was not statistically significant.

An oneway ANOVA of subscores on the PALS by location (i.e., Chicago, Beijing) revealed three statistically significant findings. The findings are discussed in terms of the cultural differences, level of schooling and gender differences.

## GENERAL FINDINGS

Two-way ANOVA Grade x Gender x Culture

Main effect significant for culture F = 13.990

Spread vs. Level Plot of total pal score a positive linear relation

Krusal Wallace and Binomial Tests (Non parametric) also significant for culture. There were done because the variables are nominal scale and sample sizes are uneven.

Plots of the PAL subtests scores indicate skewed distributions (this is across all subjects).

MANOVA results of PAL subtests and gender and culture has statistically significant findings for the same subtest identified by the Two-way ANOVA.

# SAMPLE PAL ITEMS

| | Not at all true | | Somewhat true | | Very true |
|---|---|---|---|---|---|
| I like schoolwork that I'll learn from even if I make a lot of mistakes. | 1 | 2 | 3 | 4 | 5 |
| One of my main goals is to avoid looking like I can't do my work. | 1 | 2 | 3 | 4 | 5 |
| Our teacher lets us know which students get the highest scores on tests. | 1 | 2 | 3 | 4 | 5 |
| I feel upset because my parents and my teachers have different ideas about what I should learn in school. | 1 | 2 | 3 | 4 | 5 |

**Table 1. Descriptive Statistics of Total PAL Score by Grade and School**
Dependent Variable: total pal score

| GRADE | GENDER | Culture | Mean | Std. Deviation | N |
|---|---|---|---|---|---|
| Elementary | .00 Males | Chgo | 161.5000 | 26.8752 | 10 |
| | | Beijing | 156.0615 | 19.1294 | 65 |
| | | Total | 156.7867 | 20.1939 | 75 |
| | 1.00 Females | Chgo | 164.2857 | 39.8861 | 7 |
| | | Beijing | 153.9583 | 20.0783 | 72 |
| | | Total | 154.8734 | 22.3173 | 79 |
| Middle | .00 | Chgo | 166.8182 | 34.7241 | 11 |
| | | Beijing | 151.3099 | 15.1087 | 71 |
| | | Total | 153.3902 | 19.3498 | 82 |
| | 1.00 | Chgo | 180.1667 | 37.3171 | 6 |
| | | Beijing | 152.9412 | 13.8267 | 51 |
| | | Total | 155.8080 | 19.1334 | 57 |

**Table 2. Descriptive Statistics for PAL Subscore by Group**

| | | N | Mean | Std. Deviation |
|---|---|---|---|---|
| AVGAPAL | Chicago | 57 | 3.9193 | .7289 |
| | Beijing | 260 | 3.8338 | .7393 |
| | Total | 317 | 3.8492 | .7370 |
| AVGBPAL | Chicago | 63 | 3.5582 | .9589 |
| | Beijing | 260 | 3.8404 | .7860 |
| | Total | 323 | 3.7853 | .8286 |
| AVGCPAL | Chicago | 56 | 3.2560 | 1.1577 |
| | Beijing | 260 | 2.5237 | .8298 |
| | Total | 316 | 2.6535 | .9373 |
| AVGDPAL | Chicago | 57 | 3.9930 | .8358 |
| | Beijing | 260 | 4.3154 | .5571 |
| | Total | 317 | 4.2574 | .6273 |
| AVGFPAL | Chicago | 53 | 3.8760 | .6407 |
| | Beijing | 259 | 3.8378 | .5615 |
| | Total | 312 | 3.8443 | .5748 |
| AVGGPAL | Chicago | 62 | 2.7634 | 1.1922 |
| | Beijing | 260 | 1.7487 | .7078 |
| | Total | 322 | 1.9441 | .9137 |
| AVGHPAL | Chicago | 62 | 2.8038 | .9707 |
| | Beijing | 260 | 2.3532 | .9102 |
| | Total | 322 | 2.4400 | .9377 |

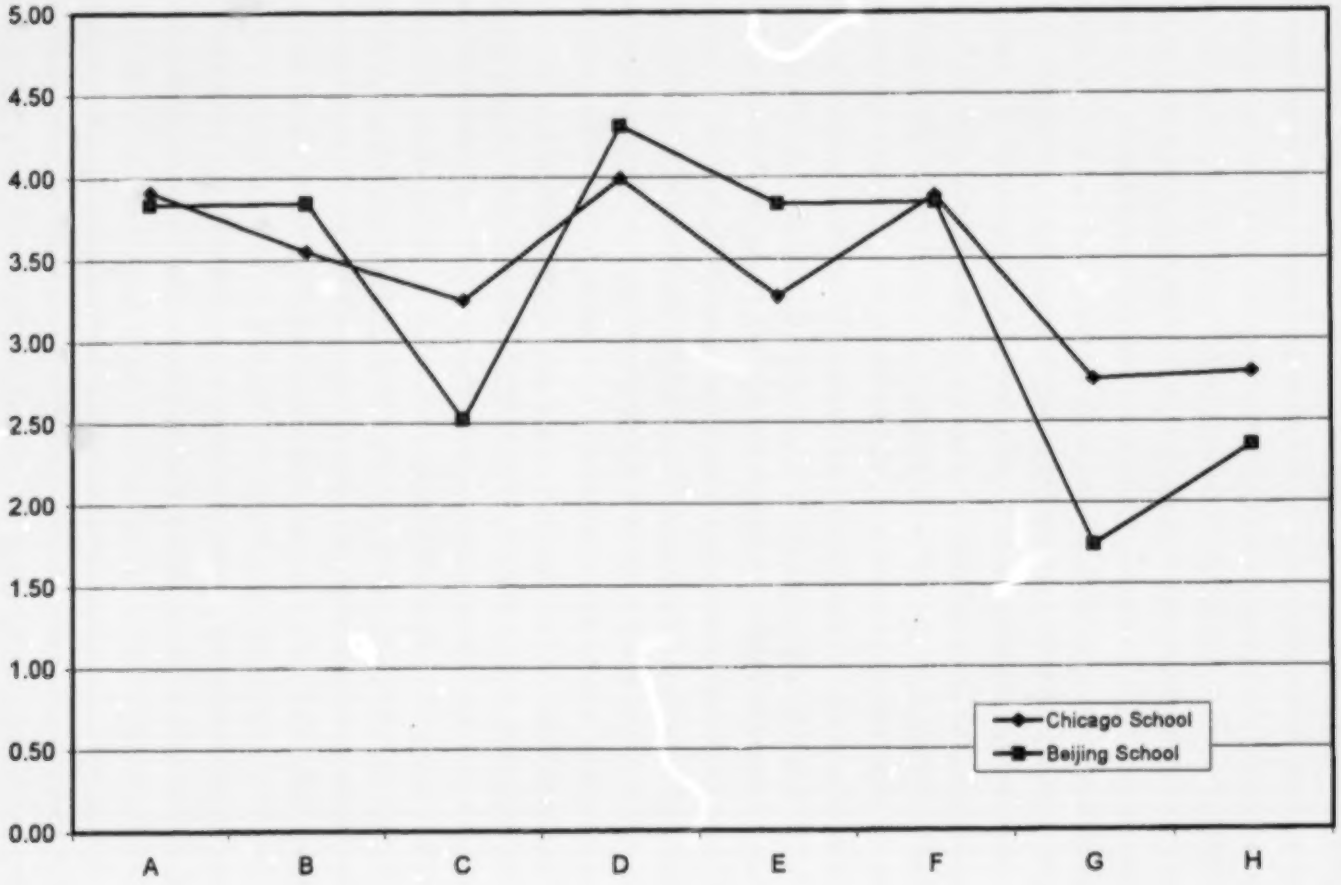
⇑

See Table 3 for these names

## Table 3. Results of Two Analysis of Variance of PAL Subscore by Group

| | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| **AVGAPAL** Personal Achievement | Between Groups | .341 | 1 | .341 | .628 | .429 |
| | Within Groups | 171.291 | 315 | .544 | | |
| | Total | 171.632 | 316 | | | |
| **AVGBPAL** Personal Goal-Oriented Approach | Between Groups | 4.038 | 1 | 4.038 | 5.973 | .015 |
| | Within Groups | 217.024 | 321 | .676 | | |
| | Total | 221.062 | 322 | | | |
| **AVGCPAL** Performance Avoid | Between Groups | 24.704 | 1 | 24.704 | 30.777 | .000 |
| | Within Groups | 252.046 | 314 | .803 | | |
| | Total | 276.751 | 315 | | | |
| **AVGDPAL** Perception of Classroom Goal | Between Groups | 4.859 | 1 | 4.859 | 12.810 | .000 |
| | Within Groups | 119.496 | 315 | .379 | | |
| | Total | 124.355 | 316 | | | |
| **AVGFPAL** Academic Efficacy | Between Groups | 6.402E-02 | 1 | 6.402E-02 | .193 | .661 |
| | Within Groups | 102.699 | 310 | .331 | | |
| | Total | 102.763 | 311 | | | |
| **AVGGPAL** Academic Self-Handicapping | Between Groups | 51.547 | 1 | 51.547 | 76.208 | .000 |
| | Within Groups | 216.447 | 320 | .676 | | |
| | Total | 267.994 | 321 | | | |
| **AVGHPAL** Cultural Dissonance | Between Groups | 10.163 | 1 | 10.163 | 11.953 | .001 |
| | Within Groups | 262.065 | 320 | .850 | | |
| | Total | 282.228 | 321 | | | |

## PAL Scores by Culture Group




Note: ANOVA of PAL scores by culture group not significant. Non-significant between group analysis findings for gender differences. ANOVA statistically significant by education level X culture.

## RESULTS

Three hundred and twenty-seven participants' responses to the PAL were analyzed. 174 participants (n = 36 Chicago; n = 138 Beijing) were in grades 4 and 5. 151 participants (n = 29 Chicago; n = 122) were in grades 6,7 and 8.

The gender ratio was approximately 55:45 for each school/country.

In a 2-way ANOVA procedure, level of schooling ($4^{th}$ and $5^{th}$ grade, 6-$8^{th}$ grade), gender and culture (Chicago and Beijing schools) was examined. A main effect was determined for levels of schooling, $F = 4.281$ $p = .017$, $df = 2,322$. The main effect for gender and culture were not statistically significant. The interaction between the variables was not statistically significant. Table 1 represents the mean standard deviation and sample size for each variable tested at each level tested.

The average rating for the seven subtests by group was tabulated in Table 2. A one-way between-groups analysis of the subscores by group (Chicago versus Beijing School) revealed three statistically significant findings for Personal Goal Orientation. Approach ($F = 5.973$ dfsl, 327, $p = .015$) Performance – Avoid ($F = 30.777$, $df = 1,321$, $p = .000$), Perceptions of Classroom Goals ($F = 12.810$, $df = 1,321$, $p = .000$), Academic Self-Handicapping ($F = 76.208$, $df = 1,321$, $p = .000$) and Cultural Dissonance ($F = 11.953$, $df = 1,321$, $p = .001$).

**CONCLUSIONS:**

- Insufficient subject number in Chicago area schools prevented meaningful analysis to compare to schools in Beijing.

- Slight, but non-significant, findings on PAL data analysis suggest further measurement of students' perception of academic motivation is necessary.

- Unanswered research questions such as: Does a decline in motivation exist in Chinese students as it does in Americans as they make a shift from elementary to middle school? What identified similarities and differences in academic style are revealed by the PALS self-report measure between Chinese and American groups of students?

## References

Anderman, E. & Midgley, C. (1997). Changes in achievement goal orientations, perceived academic competence, and grades across the transition to middle-level schools. Contemporary Educational Psychology, 22, 269-298.

Eaton, M. & Dembo, M. (1997). Differences in the motivational beliefs of Asian American and non-Asian students. Journal of Educational Psychology, 89, 433-440.

Eccles, J. S., Midgley, C., & Adler, T. F. (1984). Grade-related changes in the school environment: Effects on achievement motivation. In J. F. Nicholls (Ed.), The development of achievement motivation. Greenwich, CT: JAI Press.

McInerney, D., Roche, L., McInerney, V., Marsh, H. (1997). Cultural perspectives on school motivation: The relevance and application of goal theory. American Educational Research Journal, 34 (1), 207-236.

Salili, F., (1995). Examining Chinese students' motivation and achievement: A socio-cultural analysis. Advances in Motivation and Achievement, 9, 73-118.

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